



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,735	02/17/2006	Peter Tiemann	2003P11342WOUS	4938
22116	7590	10/23/2008	EXAMINER	
SIEMENS CORPORATION INTELLECTUAL PROPERTY DEPARTMENT 170 WOOD AVENUE SOUTH ISELIN, NJ 08830			CASAREGOLA, LOUIS J	
		ART UNIT	PAPER NUMBER	
		3741		
		MAIL DATE		DELIVERY MODE
		10/23/2008		PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/568,735	TIEMANN, PETER	
	<b>Examiner</b>	<b>Art Unit</b>	
	Louis J. Casaregola	3741	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 14-31 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 14-31 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____ .                                     |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/17/06</u> .   | 6) <input type="checkbox"/> Other: ____ .                         |

***Objections To Claims***

Claims 16, 20, 22 and 24-26 are objected to under 37 CFR 1.75(a) because the following expressions lack antecedent basis:

- In claim 16, line 1, “the annular gap”,
- In claim 20, line 2, “the cooling fluid”,
- In claim 22, lines 1-2, “the supporting element”,
- In claim 24, lines 1-2, “the cavity” and “the outer supporting elements”,
- In claim 25, line 2, “the cavity”, and
- In claim 26, line 1, “the liquid”.

***Claim Rejections - 35 USC 112***

Claims 14-27, 30 and 31 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 ends with the passage, “an annular opening in a central region between the outer wall and the inner wall; and”. Further claim language was obviously intended to follow the term “and”, but that language is missing. Claim 14 and related dependent claims 15-27 are consequently incomplete and are thus rendered indefinite.

Claim 19 further states that two diffuser passages “have a constant cross section over the flow length”. This limitation appears to conflict with what is shown in the disclosed inventive embodiment since diffuser passages 45 and 47 are shown in Figure 1 as increasing in cross section, and they could not perform there intended diffusion function if this were not true. It thus appears that applicant has not accurately claimed the subject matter he considers to be his invention.

Claim 30 describes a tube nozzle as “located inward of the annular opening of the distribution element” (lines 2-3). This limitation is likewise inaccurate since, as shown in Figure 1, the nozzle 63 is actually located outward (radially outward) of the distribution element opening 49.

In claim 31, “the radially inner part passage” (line 3) is not clearly defined and is consequently indefinite.

### ***Claim Rejections - 35 USC 103***

Claims 28 and 29 are rejected under 35 USC 103(a) as being unpatentable over Brookman et al.

The essential features of the claimed diffuser apparatus are present in prior art diffusers of the type disclosed by Brookman. Attention is called to the diffuser shown in Brokman's Figure 1; see inner diffuser wall 8, outer diffuser wall 10, the annular

distribution element formed by the combination of components 12 and 32, the distribution element opening defined between the leading edges of components 12 and 32, and the supporting elements 22 and 38 between the diffuser walls and the distribution element. It is further noted that the claimed supporting elements are described as hollow, but Brookman is silent as to the structural details of his supporting elements 22 and 38. Fabricating these elements as hollow components, however, would have been a logical and obvious weight-saving expedient since Brookman's diffuser is clearly applicable to aircraft engines wherein even small weight reductions are highly desirable.

#### ***Additional References***

Wilde et al and Burrus are cited as disclosing examples of prior art diffuser systems with fuel tubes running through diffuser components; see elements 31 in Figure 3 of Wilde, and elements 46 and 72 in Figure 1 of Burrus

/Louis J. Casaregola/  
Primary Examiner; A.U. 3741  
571-272-4826 (M-F; 7:30-4:00)  
571-273-8300 FAX  
October 22, 2008

If repeated attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor, Michael Cuff, can be reached at 571-272-6778.

Information regarding the status of this application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, and status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).